

AMENDED CLAIMS

[Registered at the International Office on 5th January 2005 (05.01.05), original claims 1- 22 replaced by amended claims 1 – 12.]

Ultrasound welding device for compacting and/or welding electric conductors

1. Ultrasound welding device for compacting and/or welding electric conductors (10), more especially for producing via nodes or end nodes of stranded conductors, said ultrasound welding device comprising a sonotrode (12), one portion of which is a first delimitation surface (18) of a compacting chamber (20) that accommodates the conductors, said compacting chamber in addition being defined by a portion of a counter-electrode (14) that forms a second delimitation surface (22) and by at least one additional third delimitation surface (24) that is formed by a portion of a delimitation element (16), wherein the compacting chamber (20) has a substantially triangular open cross-section, which is surrounded by the mutually adjustable portions of the sonotrode (12), of the delimitation element (16) and of the counter-electrode (14), and, when the delimitation element is displaced, the counter-electrode is positively driven in such a manner that during the compacting or respectively welding of the conductors (10), the edge (30) of the counter-electrode adjoining the sonotrode is adjustable along the first delimitation surface (18) while a constant or almost constant gap is maintained, characterised in that the first delimitation surface that is formed by the portion of the sonotrode (12) extends inclinedly relative to the horizontal, in that the third delimitation surface (24) that is formed by the delimitation element (16) extends vertically and in that the counter-electrode (14) projects from the delimitation element so as to be displaceable..
2. Ultrasound welding device according to claim 1, characterised in that the first delimitation surface (18) and the third delimitation surface (24) form an angle β where $30 < \beta < 60^\circ$.
3. Device according to claim 1, characterised in that the second delimitation surface (22) that is formed by the counter-electrode (14) forms an angle γ with the third